

Notes on the birds of prey in the Indus valley¹

F. J. KONING

Belkmerweg 35, Burgervlotbrug N.H., Holland

INTRODUCTION

In this paper I hope to give an impression of the present status of the birds of prey. Their existence is threatened in almost all parts of the world. The favourable conditions presently prevailing will certainly diminish, and we can only hope that a part of the richness of the Indus valley can be preserved.

Material

The observations have been made during five visits to Pakistan in the years 1970 to 1974. All visits took place in the months December, January and February. Only very few observations have been made in March. The aim of the expeditions was to carry out a winter survey of waterfowl on the lakes and wetlands of Pakistan on behalf of the International Waterfowl Research Bureau.

The work involved intensive travelling by car, during which we noted down all the raptors seen. Most lakes in the Punjab and in Sind are situated close to the river Indus. We did not survey Baluchistan, and have only very few observations from the NWFP.

Table 1 summarises all sightings of birds of prey. It should however be understood that such a list does not give an exact picture of

the composition of the birds of prey population. This for the following reasons:

1. When observing from a moving car one certainly overlooks the smaller birds of prey very easily.
2. Species having the habit of perching prominently on telephone poles etc. will be represented in higher numbers than those species which do not have this habit.
3. Our surveys only covered the valley of the river Indus.

The total number of species observed was 34. It is remarkable that the Falconidae only play a very unimportant role in the total population. Of some species we were able to form an impression about the densities by taking the average number seen per stretch of 10 miles. Often those densities far exceeded our experience in the surrounding countries like Iran, Afghanistan, Iraq, Turkey or Gujarat in India.

Conservation

In the province of Sind all birds of prey are protected by law and we hope that the other provinces will follow this example.

Hardly any statistical material has been collected so far. It is however certain that many species, especially the falcons, have diminished considerably during the last years.

The reasons for the decline are deforesta-

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tion, drainage of marshes, land use and the use of pesticides. All those developments are related with the social circumstances and it will be very difficult to take measures to stop the decline.

Very rare and specialized species like the Pallas's Fishing Eagle certainly need protec-

tive measures. Big trees in the surroundings of lakes are becoming scarce and the eagles need such trees for nesting. It would be interesting to build artificially made nests and place them near suitable lakes. For storks and birds of prey such nests have been successful in Europe.

TABLE 1

SIGHTINGS OF BIRDS OF PREY DURING FIVE WINTER VISITS TO THE INDUS VALLEY 1970-1974

Blackwinged kite	<i>Elanus caeruleus</i>	181
Honey Buzzard	<i>Pernis ptilorhyncus</i>	10
Black kite	<i>Milvus migrans</i>	4,599
Brahminy Kite	<i>Haliastur indus</i>	80
Shikra	<i>Accipiter badius</i>	38
Longlegged Buzzard	<i>Buteo rufinus</i>	220
Buzzard	<i>Buteo buteo</i>	2
White-eyed buzzard	<i>Butastur teesa</i>	262
Bonelli's Hawk-Eagle	<i>Nisaetus fasciatus</i>	262
Booted Eagle	<i>Hieraetus pennatus</i>	8
Golden Eagle	<i>Aquila chrysaetos</i>	1
Imperial Eagle	<i>Aquila heliaca</i>	56
Tawny Eagle	<i>Aquila rapax</i>	386
Tawny? or Imperial Eagle?	<i>Aquila ??</i>	223
Greater Spotted Eagle	<i>Aquila clanga</i>	204
Pallas's Fishing Eagle	<i>Haliaeetus leucoryphus</i>	77
Whitetailed Eagle	<i>Haliaeetus albicilla</i>	12
Cinereous Vulture	<i>Aegyptius monachus</i>	20
Griffon Vulture	<i>Gyps fulvus</i>	140
Whitebacked Vulture	<i>Gyps bengalensis</i>	1,725
Egyptian Vulture	<i>Neophron percnopterus</i>	229
Lämmergeier	<i>Gypaetus barbatus</i>	18
Hen Harrier	<i>Circus cyaneus</i>	14
Pale Harrier	<i>Circus macrourus</i>	57
Montagu's Harrier	<i>Circus pygargus</i>	3
Marsh Harrier	<i>Circus aeruginosus</i>	509
Short-toed Eagle	<i>Circaetus gallicus</i>	18
Osprey	<i>Pandion haliaetus</i>	155
Lanner Falcon	<i>Falco biarmicus</i>	14
Peregrine Falcon	<i>Falco peregrinus</i>	6
Merlin	<i>Falco columbarius</i>	1
Indian merlin	<i>Falco chicquera</i>	15
Kestrel	<i>Falco tinnunculus</i>	69
Saker Falcon	<i>Falco cherrug</i>	1

BLACKWINGED KITE *Elanus caeruleus*

The Blackwinged kite can be seen in most parts of the Indus valley. The best habitats in which we observed this magnificent bird were cultivated lands with scattered trees and an abundance of shallow waters, marshes or rice fields. The population is resident but considerable differences in population density occur.

In the habitat mentioned we observed averages ranging from 0.5 to 2.8 bird on a stretch of 10 miles.

In Lower Sind the Blackwinged kite is very common and in the regions of Mirpur Sakro, Badin and Ladiun we observed densities of 0.3 to 0.9 bird per 10 miles. Once near Khandkot we counted 15 birds in 31 miles which accounts for 4.8 bird per 10 miles.

In the Punjab, and certainly in NWFP, the blackwinged kite seemed less common to us.

CRESTED HONEY BUZZARD *Pernis ptilorhyncus*

The Honey Buzzard is a resident or at least a summer visitor to Pakistan. It frequents forests and this habitat is rather scarce. Most of our records are from the Punjab and from northern parts in Sind. Only one record from Lower Sind. We observed 10 birds only, but according to Mr. T. J. Roberts (pers. comm.) the Honey Buzzard breeds in good numbers in the Punjab up to the Murree hills.

BLACK KITE *Milvus migrans*

Three different subspecies of this kite can be found in Pakistan. We made no attempts to separate them. The Black kite is certainly the most common bird of prey in Pakistan. The cities have hundreds of kites and metropolises like Lahore or Karachi will have populations of several thousands of birds.

The kites concentrate on rubbish dumps, near fishing industries or in parks. It often was impossible to estimate their exact num-

bers. Some of our records show their abundance: 250 on a roost in Thatta on 9-i-1974; 319 between Thatta and the outskirts of Karachi and 550 on a rubbish dump near Karachi both on 17-xii-1972 and finally 320 kites along the shores of lake Rap near Ghauspur.

The kites breed in trees, on buildings, on telephone poles or on electricity pylons. In January and February we often found nests with eggs or young birds.

BRAHMINY KITE *Haliastur indus*

A magnificent raptor which can usually be seen on wetlands with strongly fluctuating water levels. It frequents barrages and tree-lined canals also.

It is common along the tidal creeks in the mouth of the Indus river. On a boat trip from Karachi to Ketti Bandar we observed 12 birds on 20-ii-1972. Our most northern observations are from the Taunsa Barrage. We have no observations from NWFP, the Saltrange or the Punjab N. of Multan.

The habitat of this species is rather restricted and this is probably the reason why it is not a common bird in Pakistan.

The food of this kite consists of dead fish, frogs, mud-skippers and lizards.

SHIKRA *Accipiter badius* and/or *A. nisus*

The Sparrow-Hawk lives in forests and in former days certainly has been more common than at present. During our waterfowl surveys we usually worked in open country with the result that we observed few Shikras. The records are all from the Punjab and from Sind; none from NWFP. In the Punjab the Sparrow-Hawk breeds along tree-lined canals, in forests and even in cantonment gardens.

LONGLEGGED BUZZARD *Buteo rufinus*

Common winter visitor to all parts of Pakistan. The Longlegged Buzzard can be seen in

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all types of habitat ranging from deserts to cultivated areas. When we analyze our 220 observations we find that in Sind the population is 4 times as dense as that in the Punjab or NWFP.

In Sind their number averaged 0.8 bird in 10 miles; in the Punjab, the NWFP and near Quetta this figure was 0.2 bird on a stretch of 10 miles.

The species is extremely variable in coloration. In Pakistan the whitish and reddish phase dominate, while only one out of twenty birds shows a very dark brown plumage.

BUZZARD *Buteo buteo*

A rare bird in most parts of the Indus valley. The buzzard breeds in the Himalayas and probably does not migrate to the plains. It remains in the foothills during winter. We have two records only, both from the NWFP: one bird near lake Kheski on 29-i-1974 and one bird near Kohat only a few days later. Mr. T. J. Roberts (pers. comm.) has definite records from Lower Sind but agrees it is rare.

WHITE-EYED BUZZARD *Butastur teesa*

One of the commonest species, especially in the Punjab and in Sind. It lives in open country with small groups of trees or bushes. It is absent from the higher parts of Pakistan. We have only two observations from the NWFP, both from the month of March and none from January or February. Also in the Salt range the white-eyed Buzzard can be classified as rare.

In Sind we counted 73 birds in 784 miles which averages 0.9 bird per 10 miles. In the Punjab the population density seemed less. Here we observed 22 birds in 546 miles which averages 0.4 bird in 10 miles.

BONELLI'S HAWK-EAGLE *Nisaetus fasciatus*

A rather rare bird which can be found in

small numbers on some of the lakes in Sind. It also occurs in hilly habitats (Kohistan, Salt Range and Margalla hills). We have 14 sightings only. The lakes where we observed this species often had a rich vegetation and an abundance of waterfowl (Phoosna, Sadori, Talli, Charwo, Langh and Haleji). Conservation of those rich freshwater lakes of Sind will certainly contribute to the survival of this rare eagle.

Bonelli's Eagles often catch duck or coot. However their prey is frequently pirated from them by less active birds of the genus *Aquila*.

BOOTED EAGLE *Hieraetus pennatus*

An easily overlooked resident species which breeds in Baluchistan and Hazara district.

Rare bird: eight observations only. Three birds were seen between Basal and Attock on 30-iii-1970. One near Bahawalpur on 15-ii-1972 and four records from Sind in the months January and December. It is perhaps a regular but rather rare winter visitor to Lower Sind.

GOLDEN EAGLE *Aquila chrysaetos*

The Golden Eagle is said to breed in the Himalayas and in the higher parts of Baluchistan. It seldom comes down to the valley of the river Indus. We have only one record: a juvenile on 14-i-1974 at 20 miles S. of Badin.

IMPERIAL EAGLE *Aquila heliaca*

Most authors are very vague about the status of the Imperial Eagle in Pakistan. The reason is that the different species of the genus *Aquila* are very difficult to identify. The Imperial Eagle can easily be mistaken for a Tawny Eagle. It however can easily be distinguished from the Spotted Eagle. Out of 442 big eagles 56 were Imperial Eagles. So we have the impression that at least 1 out of 8 big eagles can be an Imperial Eagle. The spe-

cies is a winter visitor and prefers open desert areas or lakes; in general it avoids extensive cultivations.

TAWNY EAGLE *Aquila rapax*

Common in all parts of Pakistan. We identified 386 individuals while most of the 223 unidentified eagles certainly also belonged to this species. It prefers all sorts of open country. In the Punjab and in many parts of Sind the densities are between 0.4 and 1.2 bird per stretch of 10 miles. In Lower Sind the Tawny Eagle is extremely abundant: 4.2 per stretch of 10 miles.

GREATER SPOTTED EAGLE *Aquila clanga*

Not uncommon. Almost all observations are correlated with the presence of water like lakes, canals or marshes. The total number seen was 204 birds. So the Greater Spotted Eagle is less abundant than the Tawny Eagle but certainly commoner than the Imperial Eagle. The species is a winter visitor mainly. We do not have records from lakes situated N. of the Taunsa Barrage.

WHITETAILED SEA EAGLE *Haliaeetus albicilla*

The rarest regular winter visitor to Pakistan. Total population less than five!

There are only three locations in Pakistan where we observed this very rare winter visitor. All these three are large wetlands which afford winter refuge to between 20,000 and 50,000 ducks and coots.

List of observations:

Chasma Barrage: 2 on 9-ii-1971 and 1 on 2-ii-1973.

Ghauspur: 2 on 15-ii-1971, 1 on 10-ii-1973 and 3 on 28-xii-1973.

Taunsa Barrage: 2 on 5-ii-1973 and 1 on 26-xii-1973.

PALLAS'S FISHING EAGLE *Haliaeetus leucoryphus*

The habitat of this rather rare bird is scarce and for this reason the birds are mainly seen in the southern parts of Pakistan.

We encountered Pallas's Fishing Eagle on 18 different lakes. The habitat should include freshwater with an abundance of fish, waterfowl and vegetation. As nesting site it usually chooses a very old tree. It is a resident bird which breeds in the winter when scores of waterfowl provide a good supplement to the fish food.

During our waterfowl surveys we surveyed about 50 different lakes, probably the best lakes of the country. The result was a population of 26 pairs of this eagle only! We did not explore the numerous dhands and jheels situated in the desert east of the Nara, but we have a strong impression that its total population in Pakistan does not exceed 40 or 50 pairs, perhaps much less!

List of lakes where we observed the Pallas's Fishing Eagle:

Lal Suhanra
Ghauspur
Haleji
Chateji
Dho
Maboobshah
Jafferli
Phoosna
Taunsa Barrage
Manchar
Sadri
Sanghriaro
Soonahri
Jamrao Head
Borthie
Dabhko
Charwo

Also the Indus near Sukkur, and canals around Badin.

A serious threat to this species is the disappearance of old trees around the lakes. Pakistan is densely populated and big trees are the only safe places left for nesting. It might be an interesting experiment to offer man-made nests for the birds in areas where old big trees are absent. A good protection and conservation of both habitat and the birds is urgently needed.

CINEREOUS VULTURE *Aegyptius monachus*

A resident vulture breeding in Baluchistan and NWFP. Is seldom seen in the plains of the Indus. Twenty observations only. Most of our sightings are from the surroundings of Karachi where it frequents the rubbish dumps with numerous other species of raptors. Other observations are: 2 birds near Hyderabad on 17-i-1974, 2 near Attock on 1-ii-1973 and 2 at the Chasma Barrage on 2-ii-1973.

GRIFFON VULTURE *Gyps fulvus*

A breeding bird of the Khirtar Range and the Himalayas. It can be seen regularly in the surroundings of Karachi where up to 15 birds visit the rubbish dumps. They perhaps originate from the Khirtar. Regular visitor to the plains and deserts of Lower Sind: 2 near lake Sadori (Sanghar), 2 near Boharo and 7 near the lake Hadero on 15, 17 and 22 February 1973 respectively. Is also regularly seen around Kamber (Larkana district). Two records from more northern regions: 14 near the Chasma Barrage on 2-ii-1973 and 5 N of Saidu in Swat on 4-iv-1970.

Longbilled Vulture *Gyps indicus*

In the Salt Range we often observed vultures which we identified as Griffon Vulture. Other authors regard those vultures as belonging to the species *Gyps indicus*. So far we never

where sure having seen this species. On the ground their small size struck us but we could not see any difference with the plumage of the Griffon Vulture. I doubt whether the birds are a different species from *Gyps fulvus*.

There is a small colony on the rocks in the pass between Kushab and Talagang. Other records are from the same area near Chakwal, Ucchali and Kalar Kahar.

Whitebacked Vulture *Gyps bengalensis*

The commonest vulture in Pakistan. Our total number of sightings is 1725 but certainly very low as we did not survey all the parks or refuse dumps in the big cities. Many colonies are situated in parks or along tree-lined canals or roads. Well distributed all over the valley of the Indus.

Egyptian Vulture *Neophron percnopterus*

In winter the Egyptian vulture can be found on the rubbish dumps in the big cities where it feeds along with the other vultures and kites. Concentrations seldom exceeding 40 birds. In winter it is absent from the higher parts of Pakistan (Salt Range and many parts of the NWFP).

Our total of 229 records shows that it is less abundant than the Whitebacked Vulture but more widespread than the Griffon.

Lammergeier *Gypaetus barbatus*

The distribution of the Bearded Vulture is restricted to the mountainous parts of Asia and Europe. We have no records from the Indus Valley. All three observations from rocky parts: 1 near the Warsak Barrage (NWFP); 1 at the Khyber pass and 1 N of Saidu (Swat).

Hen Harrier *Circus cyaneus*

Rather scarce winter visitor to Pakistan. Fourteen observations only. Usually this species winters at higher altitudes.

PALE HARRIER *Circus macrourus*

The commonest of the "slender" harriers. A total of 57 observations, mainly from Sind. In this province we observed an average of 0.3 bird in a stretch of 10 miles.

MONTAGU'S HARRIER *Circus pygargus*

Scarce winter visitor. Three observations only. Identification of females is difficult. In Sind the species might be more common than *Circus cyaneus*. Its main wintering grounds are probably situated more S of Pakistan.

In seasonally flooded areas and in many other humid areas the Marsh Harrier can be found. Therefore the list is far from complete. It however gives a rough impression about the common occurrence of this harrier.

SHORT-TOED EAGLE *Circaetus gallicus*

A rare bird in all parts of Pakistan except in Lower Sind where it is a winter visitor in small numbers. It probably leaves the mountains in order to winter close to the Rann of

LIST OF LAKES WITH THEIR ESTIMATED POPULATIONS

Rasoul Barrage	15	Kheski	1
Chasma Barrage	15	Kharrar jheel	1-2
Khabakki	1 or 2	Marala Barrage	1
Nammal	1 or 2	Lake Rawal	1-2
Ucchalli	1 or 2	Manchar	20
Kalar Kahar	1 or 2	Mehar	3
Taunsa Barrage	3 or 5	Maboobshah	3
Lal Suhanra	10	Sanbher	7
Ghauspur	20	Dho, Thalli	1-2
Drigh	5 to 7	Phoosna	4-8
Langh	3 to 4	Atch	4
Haleji	30	Sadori	20
Kalri	30	Nungru	8
Hadero	5 or 6	Klanghar	3
Sandho	5	Kambar	3
Jafferli	1	Jamrao head	2
Charwo	4 or 5	Ladia	2
Soonari	5 to 10		
Sangriaro	8 to 10		
Gujo	3		

One bird was seen between Thatta and Badin on 13-i-1974. Two records of birds on migration, both in the Salt Range on March 30 and 31, 1970.

MARSH HARRIER *Circus aeruginosus*

Abundant winter visitor to the lakes and marshes of Pakistan. The total population consists of several hundred birds. Sind with its numerous lakes is the main wintering area in this part of Asia.

Kutch. Between January 11 and 14 we observed a total of 17 birds in the surroundings of Badin, Ladiun, Sujawal and Seerani (1974).

Two other records probably concern migrants: One on 24-2-1971 SE of Islamabad, and one bird at Lal Suhanra in the month of April (1970).

OSPREY *Pandion haliaetus*

The valley of the Indus is perhaps one of the main wintering areas of the Osprey in

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Asia. The Sind lakes are well provided with fish and for this reason we still encounter this raptor in good numbers. It probably is also common along the coasts of Pakistan. On a boat trip from Karachi to Ketti Bandar on 20 and 21 February 1972 we observed 8 Ospreys. Other high numbers were seen at Ghauspur where usually up to 10 birds can be found. The highest count was 16 birds at lake Hadero on 3 January 1974!

KESTREL *Falco tinnunculus*

In winter the Kestrel is the commonest falcon in Pakistan. A total of 69 observations. We had the impression that the Kestrel prefers the drier habitats like deserts and rocky areas (Salt Range, Kohistan).

MERLIN *Falco columbarius*

Rare winter visitor. One observation only. A female on 5-ii-1973 at the Taunsa Barrage.

REDHEADED MERLIN *Falco chicquera*

This magnificent falcon used to be commoner than at present. A total of 14 sightings; all

observations from the middle and southern parts of the country: Thatta district, Larkana district and near Bahawalpur.

SAKER FALCON *Falco cherrug*

A rare winter visitor to the Indus valley. One observation of a bird on 22-i-1975 near the Rann of Kutch.

LAGGER FALCON *Falco biarmicus*

Nowadays quite a rare birds in Pakistan 14 observations only. Distribution not confined to certain provinces.

PEREGRINE FALCON *Falco peregrinus*

Like the other big falcons a rather rare raptor which usually can be found near coasts or lakes where waders or ducks concentrate. A pair can usually be seen at lake Rap near Ghauspur. One bird was seen on 17-ii-1971 near Karachi where it seems to be a regular winter visitor. On 21-ii-1972 we observed a bird near Ketti Bandar, and on 17-ii-1973 another at lake Hadero.

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